

PCT/EP03/50698
ConTeyor Multibag Systems N.V.

Claims

1. A folding rack for receiving and transporting bags to be suspended in the rack, which for their part are provided for receiving objects to be transported and/or stored, having a base part and lateral frame parts which are connected articulatedly to the base part at their lower end and are pivotal about approximately 90° or more in relation to the base part, from a position perpendicular to the base part into a position substantially parallel to the base part, there being articulated to the upper end region of the lateral frame parts in each case a cross strut, these being pivotal toward one another parallel to the base part, and the free ends thereof being connectable to one another in a substantially rigid manner so that the upper ends of the side parts are held by the cross struts, which are articulated to the upper regions of the side parts and are rigidly connected to one another, at a minimum spacing defined by the cross struts, characterized in that in the mutually connected condition the free ends of the cross struts engage in one another and are held together in substantially rigid manner by a pipe clamp reaching over the connection region, and in that in the unfolded condition the side parts extend parallel to one another and substantially perpendicular to the base part, so that similar racks can be stacked on top of one another with side parts aligned with one another.
2. A folding rack according to Claim 1, characterized in that the pipe clamp is held resiliently on one of the two cross struts and pretensioned into a position reaching over the region of connection of the cross struts.
3. A folding rack according to either of Claims 1 or 2, characterized in that at least two webs of a flexible material are arranged between the side parts and define with one another and/or with connection webs extending between adjacent webs receiving bags for objects, with the flexible webs extending horizontally tensioned between the side parts in the unfolded condition of the rack.
4. A folding rack according to one of Claims 1 to 3, characterized in that when the racks are stacked on top of one another the upper free ends of the side parts are each defined by the upper ends of corner posts, and in that the base parts also have corner posts, which are flush with the corner posts of the side parts when the side parts are unfolded, with the lower end of a corner post of the base part engaging in the upper end of a corner post of a side

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part when the racks are stacked on top of one another and so being prevented from being displaced laterally.

5. A folding rack according to Claim 4, characterized in that the upper ends of the corner posts of the base part are similar in construction to the upper ends of the corner posts of the side parts, and in that the side parts are articulated to the corner posts of the base parts such that when the side parts are folded in the upper ends of the corner posts of the base parts are exposed so that folded-up racks can also be stacked on top of one another in such a way that they are prevented from slipping.
6. A folding rack according to either of Claims 4 or 5, characterized in that one of the cross struts is pivotal parallel and next to one of the corner posts of one of the side parts, and may be locked thereto.
7. A folding rack according to one of Claims 1 to 6, characterized in that the height of the rack, defined by the side parts, is at least half the width of the rack, defined by the spacing between the set-up side parts.
8. A folding rack according to one of Claims 1 to 7, characterized in that tensioning means are provided on the side parts, and these allow flexible material webs extending between the set-up side parts to be tensioned or their tension to be increased.
9. A folding rack according to one of Claims 1 to 8, characterized in that the corner posts defining the side parts are pushed into corner posts of the base part whereof the internal cross-section substantially corresponds to the external cross-section of the corner posts of the side part, with the corner posts of the base part and the corner posts of the side part additionally being connected to one another by a pin and slot connection, with the corner posts of the side parts and the base parts being locked in alignment with one another in one position of the pivot pin in the slot and the corner posts of the side parts being pivotal in relation to the corner posts of the base part in the other position of the pivot pin in the slot.
10. A folding rack according to one of Claims 1 to 9, characterized in that the points at which the cross struts are articulated to the side parts are constructed such that the cross struts, as well as defining a minimum spacing, at the same time define the maximum spacing between the side parts.